A STUDY OF IMPACT OF SELECTED FACTORS ON CURRENCY DERIVATIVE TRANSACTIONS

A synopsis

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INTRODUCTION

Derivatives

Derivative is a financial instrument, traded on or off an exchange, the price of which is directly dependent upon/derived from the value of the underlying asset. (It has no independent value) The underlying asset can be securities, commodities, bullion, currency, stock market index, debt instruments, or any agreed upon pricing index or arrangement.

In other words, Derivative means a forward, future, option or any other hybrid contract of pre-determined fixed duration.

Derivatives involve the trading of rights or obligations based on the underlying product, but do not directly transfer property. They are used to hedge risk or to exchange a floating rate of return for fixed rate of return.

Currency derivatives

Currency Derivatives indicates the value derived from value of some underlying which has no independent value. Underlying can be securities, stock market index, commodities, bullion, currency, debt instruments or any agreed upon pricing index. Currency Derivatives market point of view, underlying would be the Currency Exchange rate.

The benefits of trading in currency derivatives

Currency Derivatives are very efficient risk management instruments and you can derive the below benefits

i. Hedging: It means securing oneself against loss from various risks that arise in international market. It applied to exchange risk, hedging means to alter the composition of assets and liabilities so as to fully or partially offset an existing or potential exposure to the exchange risk. You can protect

your foreign exchange exposure in business and hedge potential losses by taking appropriate positions in the same. For e.g. If you are an importer, and have USD payments to make at a future date, you can hedge your foreign exchange exposure by buying USDINR and fixing your pay out rate today. You would hedge if you were of the view that USDINR was going to depreciate. Similarly it would give hedging opportunities to Exporters to hedge their future receivables, Borrowers to hedge foreign currency (FCY) loans for interest and principal payments, Resident Indians, who can hedge their offshore investments.

ii. Speculation: You can speculate on the short term movement of the markets by using Currency Futures. For e.g. If you expect oil prices to rise and impact India's import bill, you would buy USDINR in expectation that the INR would depreciate. Alternatively if you believed that strong exports from the IT sector, combined with strong FII flows will translate to INR appreciation you would sell USDINR.

iii. Arbitrage: You can make profits by taking advantage of the exchange rates of the currency in different markets and different exchanges.

iv. Leverage: You can trade in the currency derivatives by just paying a % value called the margin amount instead of the full traded value.

Currency Derivatives Market

The introduction of Currency Derivatives in India is a landmark decision which is likely to be a boon for importers, exporters and companies with Forex exposure.

Currency Derivatives are efficient risk management tools in the Forex market. The need to protect exposure against unforeseen, unpredictable Currency movements and interest rates changes has contributed to Derivatives being developed.

Exporters and importers incur huge obligations in terms of foreign Currencies and they can guard their interests by buying appropriate Derivative products.

Common derivative contract types

Some of the common variants of derivative contracts are as follows:

1. Forward: A forward contract between a bank and a customer (which could be another bank) calls for delivery, at a fixed future date, of a specified amount of one currency against dollar payment, the exchange rate is fixed at the time the contract is entered into .A tailored contract between two parties, where payment takes place at a specific time in the future at today's pre-determined price.

2. Futures: Future contracts are contracts to buy or sell an asset on or before a future date at a price specified today. A futures contract differs from a forward contract in that the futures contract is a standardized contract written by a clearing house that operates an exchange where the contract can be bought and sold; the forward contract is a non-standardized contract written by the parties themselves. Therefore, the buyer and the seller lock themselves into an exchange rate for a specific value or delivery date. Both parties of the futures contract must fulfill their obligations on the settlement date.

3. Options These are contracts that give the owner the right, but not the obligation, to buy (in the case of a call option) or sell (in the case of a put option) an asset. The price at which the sale takes place is known as the strike price, and is specified at the time the parties enter into the option. The option contract also specifies a maturity date. In the case of a European option, the owner has the right to require the sale to take place on (but not before) the maturity date; in the case of an American option, the owner can require the sale to take place at any time up to the maturity date. If the owner of the contract exercises this right, the counter-party has the obligation to carry out the transaction.

Options are of two types:

3(i) Call Option: The buyer of a Call option has a right to buy a certain quantity of the underlying asset, at a specified price on or before a given date in the future, he however has no obligation whatsoever to carry out this right.

3(ii) Put option: The buyer of a Put option has the right to sell a certain quantity of an underlying asset, at a specified price on or before a given date in the future, he however has no obligation whatsoever to carry out this right.

4 **Swaps:** These are contracts to exchange cash (flows) on or before a specified future date based on the underlying value of currencies exchange rates, bonds/interest rates, commodities exchange, stocks or other assets. Another term which is commonly associated to Swap is Swaption which is basically an option on the forward Swap. Similar to a Call and Put option, a Swaption is of two kinds: a receiver Swaption and a payer Swaption. While on one hand, in case of a receiver Swaption there is an option wherein you can receive fixed and pay floating, a payer swaption on the other hand is an option to pay fixed and receive floating.

Swaps can basically be categorized into two types:

4(a) Interest rate swap: These basically necessitate swapping only interest associated cash flows in the same currency, between two parties.

4(b) Currency swap: In this kind of swapping, the cash flow between the two parties includes both principal and interest. Also, the money which is being swapped is in different currency for both parties.

REVIEW OF LITERATURE

Literature reviews are the body of text that aims to present the critical and methodological points regarding a topic. They are basically a secondary source of data which gives you current knowledge related to a topic so they don't poses relevancy for any original experiments.

Most often it is associated with academic orientated literature such as thesis, a literature review usually preceded a research proposal and basically it helps to situate the topic of your research with other similar related researches done.

In the view of last few year's research these studies conducted so far on currency derivatives. These studies have been classified into two groups:-

- International Reviews
- National Reviews

INTERNATIONAL REVIEWS

S.NO	AUTHOR	YEAR	TOPIC	OBJECTIVE	FINDINGS
1.	Emanuel Kohlscheen & Sandro C. Andrade	2013	Official interventions through derivatives, affecting the demand for foreign exchange	To study the effects of currency swaps auctions by the Brazilian Central Bank on the BRL/USD spot ex-change rate.	Researcher found that official currency swap auctions impact the level of the exchange rate, even though they do not directly alter the supply of foreign currency in the market. The maximum impact occurs 60 to 70 minutes
2.	Jasmina Bogicevic	2013	Accounting Implications of foreign currency transaction translation and hedging	To know the choice of the exchange rate to be used in accounting data translation and the financial reporting presentation of translation effects.	This paper discussed the accounting aspects of the foreign currency transactions translation, an enterprise's transactional exposure to a currency risk, and the use of financial derivative instruments to hedge against foreign

					exchange risk.
3.	Paulo calio & bas strath of	2012	Currency derivatives and the disconnection between exchange rate volatility and international trade	To check the availability of currency derivatives has changed the relation between exchange rate volatility and trade.	The researcher found evidence indicating that the availability of currency futures can explain the relatively small impact of exchange rate volatility on trade.
4.	J.C. Rudriguez	2012	The use of foreign currency derivatives & firm value in US	To investigate whether hedging foreign exchange rate risk with foreign currency derivative instrument creates firm value or not.	The conclusion can be derived from research is that the using of foreign currency derivatives does not have significant impact on firm value.
5.	Jeff Fleming & Barbara Ostdiek	2012	The impact of energy derivatives on the crude oil market	To examine the effect of introducing crude oil futures on the structure of oil market volatility.	The researcher found that the impact of volume on volatility is inversely related to both the unexpected change and long-term predictable component of open interest.
6.	George allayannis, ugrulel & darius p. miller	2011	The use of foreign currency derivatives, corporate governance and firm value around the world	To know the impact of currency derivatives on firm value.	The researcher found strong evidence that the use of currency derivatives for firms that have strong internal firm-level or external country-level governance is associated with a significant value premium
7.	Merijon Zhugri & sajid Ali	2011	Hedging oil prices(a case study on gotlands bolaget	To know the relationship between oil and ticket price ratios in Gotlands bolaget, TT Line and Adria Ferries Ltd.	The results of the study show that Gotlands bolaget hedge oil prices to protect themselves from volatility of oil prices.
8.	Ephraim clark & Salma Mefteh	2010	Foreign currency derivatives use, firm value & the effect of the	To investigates the relationship between foreign currency (FC) derivatives use and firm value on a	The result was shows that derivatives use is a significant determinant of French firm value and that this effect is

			exposure profile: evidence from France	sample of 176 large, non-financial French firms.	concentrated in the larger firms.
9.	Aline muller & willen f.c. vershoor	2008	The value – relevance of foreign currency derivatives	To study the value-relevance of FCD disclosures of European non-financial firms.	The researcher found strong evidence in favor of the existence of economies of scale in hedging and that European firms engage in hedging programs in Response to tax convexity.
10.	Randall dodd, Stephany Griffith	2007	Report on derivatives market: stabilizing or speculative impact on chile & a comparison with brazil	To provide an analytical description of the growth of derivatives markets and an economic analysis of their role in the economy.	The researcher analyzed the countries derivatives impact on the exchange rate during particular periods.
11.	George Allayannis, Eli Ofek	1997	Exchange rate exposure, hedging, and the use of foreign currency derivatives	To examine firm use foreign currency derivatives for hedging or for speculative purpose.	The researcher found evidence that a firm use currency derivative for hedging, as their use, significantly reduces the exchange rate exposure firm face.
12.	Jongmoo Jay choi, Elyas Elyasiani	1996	Derivative exposure & the interest rate and exchange rate risk of US banks	To investigate the linkage between a bank's systems its use of off- balance derivative transaction and equations.	The researcher found a link between the scale of a bank's interest rate and currency derivative contracts and the bank's interest rate and exchange rate risks.

NATIONAL REVIEWS

S.NO	AUTHOR	YEAR	TOPIC	OBJECTIVE	FINDINGS
1.	A. H & M Rafee.b	2014	Relationship between crude oil price and rupee, dollar exchange rate: An analysis of preliminary evidence	To examine the effects of oil price on exchange rate of Indian rupee against US dollar using time series data from 1972-73 to 2012-13.	The finding contributed to Indian government in making policy to control the petrol price to avoid rupee depreciation against US dollar.
2.	Uma C Swadimath,	2013	Rise and impact of crude oil	To study the change in prices of crude	The researcher focused In India the change in the

	K H Anil Kumar, Prasanna B Joshi		price in India	oil and its effect on the Environment of business.	price of crude oil has been a major cause for the rise in inflation rate as it greatly affects the prices of essential commodities and adversely affecting the common man
3.	Gaikwad, Abhijeet	2013	India : The next forex derivatives destination	To examine it can be attributed to the robust banking system in India.	It focused on the Derivatives market in India with special focus on Foreign Exchange (FOREX) Derivatives, its evolution in India, current scenario and future outlook.
4.	Saurabh singh, L.L Tripathi, Kirti Lalwani	2012	An empirical study on impact of exchange rate & inflation rate on performance of Bse sensex	To examine the primary factors responsible for affecting Bombay Stock Exchange (BSE) in India.	The results suggested that Inflation Rate and Exchange Rate significantly affect the performance of BSE Sensex.
5.	Sarang VK	2012	Evolution of currency future trading & its impact on exchange rate volatility in India	To understand and analyze the growth of trajectory and evolution of currency future in India and the participation of currency futures in the volatility of the trade system.	The paper investigated the growth of currency futures in India, the volatility pattern in the Indian exchange market and the influence of currency futures as a hedging instrument in the volatility of the exchange market.
6.	K. Malarvizhi & M. Jaya	2012	An analytical study on the movement of NIFTY index and exchange rate	To analyze the dynamic relationship between stock market and exchange rate.	The result found out that there is a bidirectional causal relationship between exchange rate and Nifty index.

7.	Deepti gulati & Monika Kakhani	2012	Relationship between stock market and foreign exchange market in India : An empirical study	To examine whether or not a causal relationship exists between foreign exchange rates and stock market	The researcher found that the granger result suggest over the course of 8 years there exists no relationship between exchange rates and the stock market, and correlation shows that there is very less degree positive relationship between the two.
8.	Gaurav Agrawal, Aniruddh kumar srivastav & Ankita srivastava	2010	A study of exchange rate movement and stock market volatility	To analyzes the relationship between Nifty returns and Indian rupee- US dollar exchange rates	The researcher found Nifty returns as well as exchange rates were non- normally distributed.
9.	Anuradha siva kumar & Runa sarkar	2007	Corporate hedging for foreign exchange risk in India	To evaluate the various alternatives available to the Indian corporate for hedging financial risks.	The paper concluded that forwards and options are preferred as short term hedging instruments while swaps are preferred as long term hedging instruments.

NEED OF THE STUDY

It has been observed that the previous literatures related to impact of currency derivative on firm value, impact of energy derivation on crude oil market, Relationship between the crude oil price, rupee and dollar exchange rates, Relationship of stock market and foreign exchange market, Movement of NIFTY Index and exchange rate but no study have been found on any aspect related to Currency Derivative Transaction.

- This study would help in measure the impact of Crude oil price, Currency rate (dollar) & BSE Sensex on Currency Derivative Transaction.
- This study would help to speculators, hedgers, importers, exporters to measure the impact of these factors on Currency Derivatives Transaction.
- This study would also help to the speculators, hedgers, importers, exporters to predict the Currency Derivatives Transaction in the future concern.
- This study would guide to the importer/exporters for hedging the risk.
- This study would help to predict the movement of BSE Sensex and Currency Derivative Transaction which help in future forecasting.
- This study would help in creating the relationship between BSE Sensex & Currency Derivative Transaction

OBJECTIVES OF THE STUDY

The formulation of research objectives will help researcher to with clearly defined objectives; the researchers can focus on the study. The formulation of research objectives helps the researcher avoid the collection of data which are not strictly necessary for understanding & solving problem that has defined.

The following will be considered as the main objectives of the study:

- To study the Impact of Crude oil prices on Currency Derivative Transaction
- To study the Impact of Currency rate (Dollar) on Currency Derivative Transaction
- To examine the relationship between BSE Sensex and Currency Derivative Transaction
- To study the impact of selected factors on Currency Derivative Transaction

RESEARCH HYPOTHESES:

To achieve the objectives of the study following hypotheses will frame.

1. H_{01}: Crude oil price has no significant impact on Currency Derivative Transaction.

2. H_{02}: Currency rate (dollar) price has no significant impact on Currency Derivative Transaction.

3. H_{03}: Currency Derivative Transaction has no significant dependence on BSE Sensex.

4. H_{04}: Crude oil prices, Currency Rate (Dollar), BSE Sensex have no significant impact on Currency Derivative Transaction.

RESEARCH METHODOLOGY

A research process consists of stages or steps that guide the project from its conception through the final analysis, recommendation and ultimate actions. The research process provides a systematic, planned approach to the research project and ensures that all aspects of the research project are consistent with each other.

1. SELECTED FACTORS-

Three factors will be considered to know the impact on Currency Derivative Transaction and these are:-

- Crude Oil Prices(Dollar)
- Currency Rate (Dollar)
- BSE Sensex

2. FACTORS SELECTION CRITERIA

Crude oil prices, Currency rate (Dollar) will be selected because

- There is high import of Crude oil so it affects the currency

Percentage share of Import of crude oil

YEAR	CRUDE OIL
2009-10	30.2
2010-11	28.7
2011-12	31.7
2012-13	33.4
2013-14	36.7

- There is fluctuation in currency which affects the currency derivative transaction.

Currency wise invoicing of India's export and import (in percentage)

	EXPORT					IMPORT				
Currency	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Pound	2.77	2.81	2.47	2.31	2.31	0.89	0.66	0.71	0.5	0.42
UD Dollar	84.06	84.75	86.41	84.01	88.41	86.06	83.91	85.38	88.67	86.06
Japanese Yen	0.48	0.35	0.22	0.26	0.15	2.3	1.98	1.73	1.41	1.47
Euro	10.85	10.13	8.8	8.14	6.97	9.82	12.61	11.13	8.29	9.44
All Other Currencies	1.84	1.96	2.02	2.28	2.16	0.93	0.84	1.05	1.13	2.61

- BSE Sensex is the benchmark that directly & indirectly affects the activities of dealing in BSE.

3. PERIOD OF STUDY

To conduct this study the researcher will consider three years data that is from 1st January 2014 to 31st December 2016.

4. METHOD OF DATA COLLECTION

- For collecting the crude oil price, currency rate (Dollar), BSE Sensex & currency derivative transaction in amount website will be considered.
- Other data will be collected from the textbooks, journals, articles, newspaper and internet websites.

5. DATA ANALYSIS AND PRESENTATION TOOL

For data analysis various statistical tools like Average, Percentages, regression, Correlation, Unit root test will be employed with the help of MS Excel, SPSS etc. will be used.

For the data presentation various presentation tools will be used like Bar Diagram, Tables.

OBJECTIVE WISE RESEARCH METHODOLOGY

S.NO	OBJECTIVE	RESEARCH METHODOLOGY
1.	To study the impact of Crude oil prices on Currency Derivative Transaction.	The researcher will collect three years data of Crude oil price and Currency Derivative Transaction from BSE website and to achieve this objective researcher will use the correlation and regression
2.	To study the impact of Currency rate (dollar) on Currency Derivative Transaction.	To fulfill this objective the researcher will collect three years data of currency rate and Currency Derivative Transaction from BSE website and to get the result of this objective researcher will use the correlation and regression
3.	To examine the relationship between BSE Sensex and Currency Derivative Transaction	The researcher will collect three years data of Currency Derivative Transaction from BSE website and fulfill the need of this objective researcher will use the Unit root test for relationship of both.
4.	To study the impact of selected factors on Currency Derivative Transaction	To achieve this objective the researcher will collect three years data of Crude oil prices, and Currency rate from BSE website and to accomplish this objective researcher will use the multiple regression and correlation.

PROPOSED CHAPTER PLAN

Chapter1 – Introduction

Chapter2 - Review of Literature

Chapter3 – Overview of Currency Derivative- there functioning, process of trading

Chapter4 –Analysis and interpretation of impact of selected factors on Currency Derivative Transaction

Chapter5 – Findings, Suggestions &Conclusions

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